

PROCEEDINGS
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A NEW ALSOPHILA FROM GUATEMALA AND VERACRUZ.¹

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The following new species of *Alsophila* from Alta Verapaz, Guatemala, and Veracruz has been noted in preparing a brief account of the tree ferns of Mexico, soon to be published.

Alsophila scabriuscula Maxon, sp. nov.

Arborescent, the caudex presumably stout and several meters high; fronds very ample, the stipe stout, 2 to 3 cm. in diameter, armed at the base with numerous slender, conical, dark brown spines about 4 mm. long; blades at least 2.5 meters long, subtripinnate; primary rachis stout, pale brown, 1 to 1.5 cm. thick, sparsely short-aculeate toward the base, densely but laxly hirsute with pale septate hairs, everywhere scabrous at length from their persistent inflated bases; pinnae spreading or the lower ones slightly deflexed, narrowly oblong, acuminate, 50 to 75 cm. long, 18 to 30 cm. broad, the secondary rachis deeply bisulcate above, hirsute, scabrous beneath with age; pinnules 30 to 35 pairs, approximate, spreading, sessile, oblong-linear, long-acuminate, 10 to 15 cm. long, 1.8 to 3 cm. broad, subpinnatisect, the costa densely griseous-hirsute above with curved antrorse septate hairs, less copiously griseous-hirsute beneath with long spreading septate hairs (at length scabrous) and bearing occasional small deciduous bullate yellowish scales toward the base; segments 25 to 30 pairs, linear to linear-oblong, acutish, 9 to 17 mm. long, 2.5 to 5 mm. broad, subfalcate, with narrowly acute to narrowly or (in fertile specimens) broadly quadrate sinuses, herbaceous, deeply incised, the lobes usually bidentate; costules and veins sparsely spreading-hirsute beneath and with a thin covering of minute, closely appressed septate hairs, very sparsely and deciduously hirsute above; veins about 12 pairs, those of the fertile segments once forked or with a pair of opposite excurrent branches, those of the sterile segments mostly with 2 pairs of pinnately arranged branches; sori mostly 7 to 9 pairs, small, seated at the fork of the vein, at the base of the lobe; receptacles stout, capitate, bearing a few long septate hairs.

Type in the U. S. National Herbarium, no. 830528, collected near Cubil-

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quitz, Alta Verapaz, Guatemala, altitude 350 meters, August, 1900, by H. von Türckheim (John Donnell Smith, no. 7806). There are at hand three additional specimens from the type locality, collected by von Türckheim in October, 1906 (II. 1454); these agree perfectly with the type and, like that, are wholly fertile. There are also referred here four specimens, consisting of large sterile pinnae, collected near Córdoba, Veracruz, Mexico, 1889 to 1891, by Hugo Fink (no. 5). They differ slightly in having more numerous bullate scales at the base of the segments beneath and the veins mostly with two pairs of branches; but these doubtless are only vegetative characters directly associable with sterility.

Alsophila scabriuscula is nearest related to *A. mexicana* Mart. and *A. bicrenata* (Liebm.) Fourn., of the same general region. The former species, usually known as *A. Godmani* Hook., differs in having the segments truly pinnatifid, and both the primary and the secondary rachises furnished with occasional large, flat, persistent, white scales; and the latter species, has much smaller, narrower pinnules, the segments glabrous above, and the costules beset with numerous persistent, white, bullate scales beneath. It is hardly to be doubted that the trunks and stipes would furnish good diagnostic characters also, but these are the parts usually neglected by collectors.